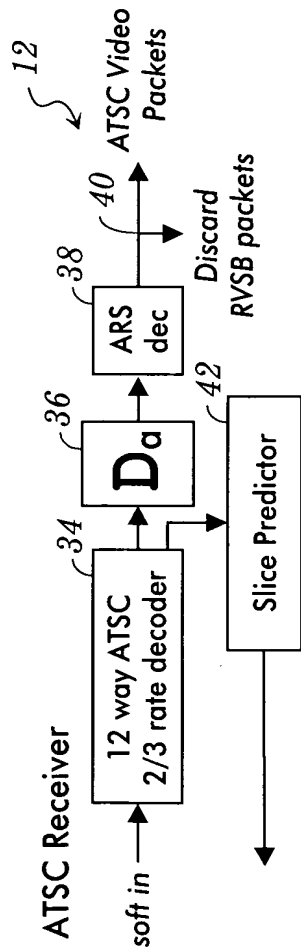
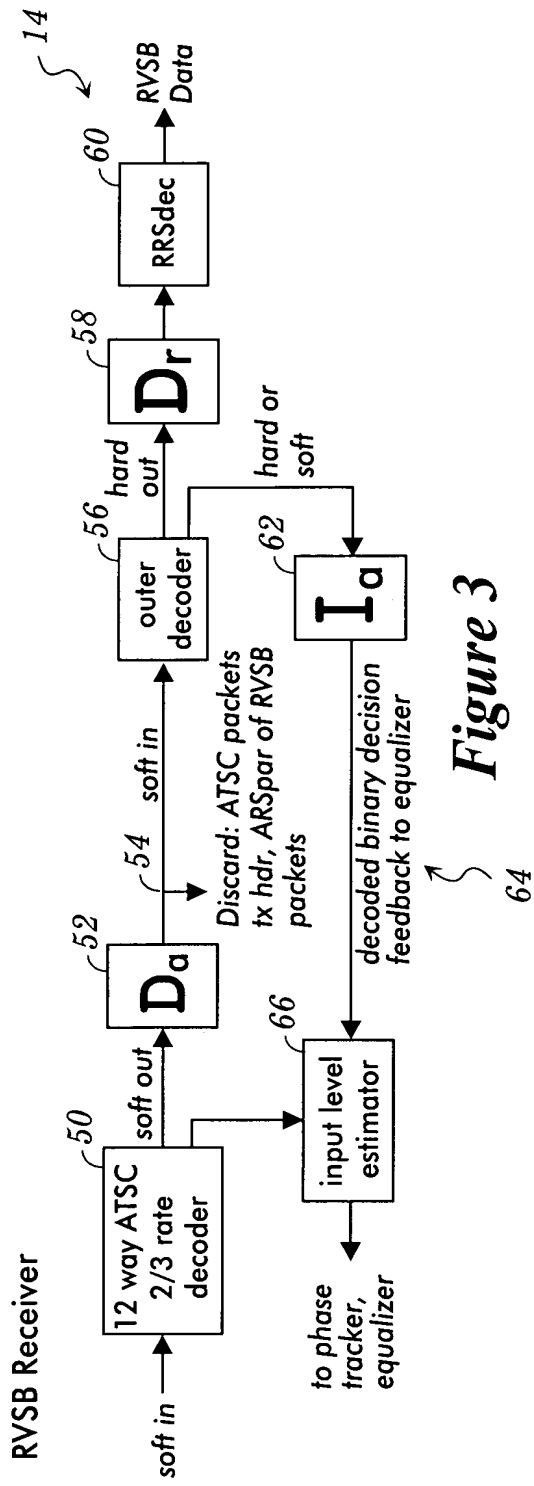


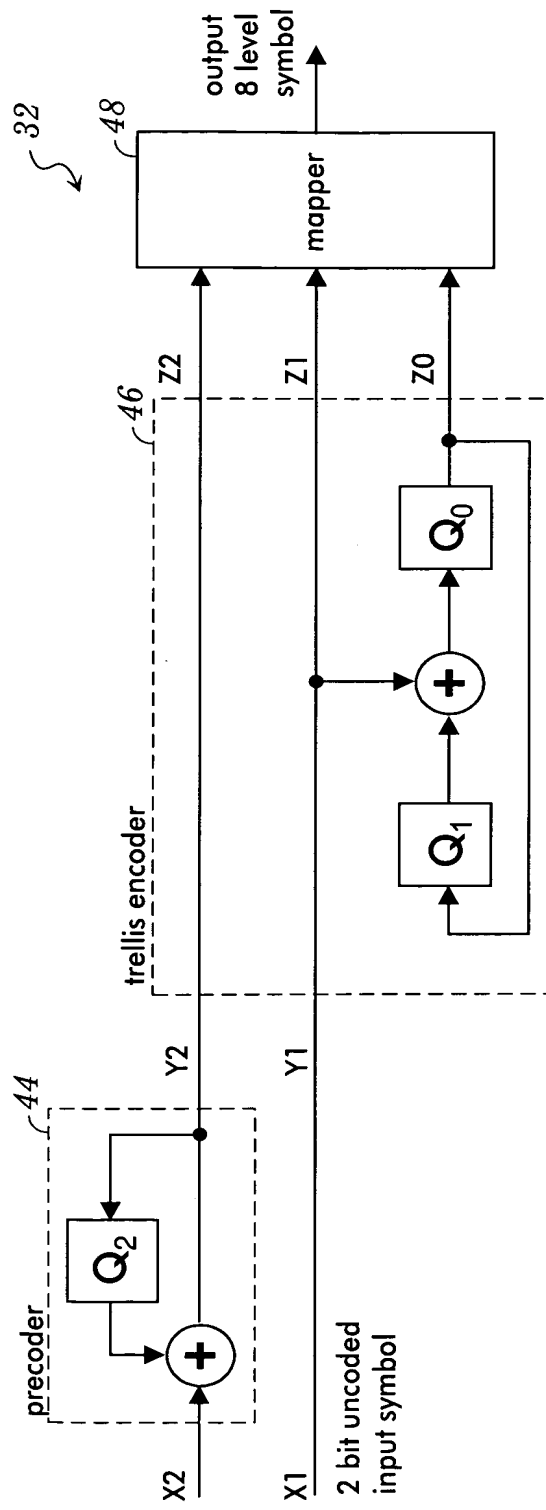
mapper function				
Z2	Z1	Z0	level	
0	0	0	-7	
0	0	1	-5	
0	1	0	-3	
0	1	1	-1	
1	0	0	+1	
1	0	1	+3	
1	1	0	+5	
1	1	1	+7	

Figure 5





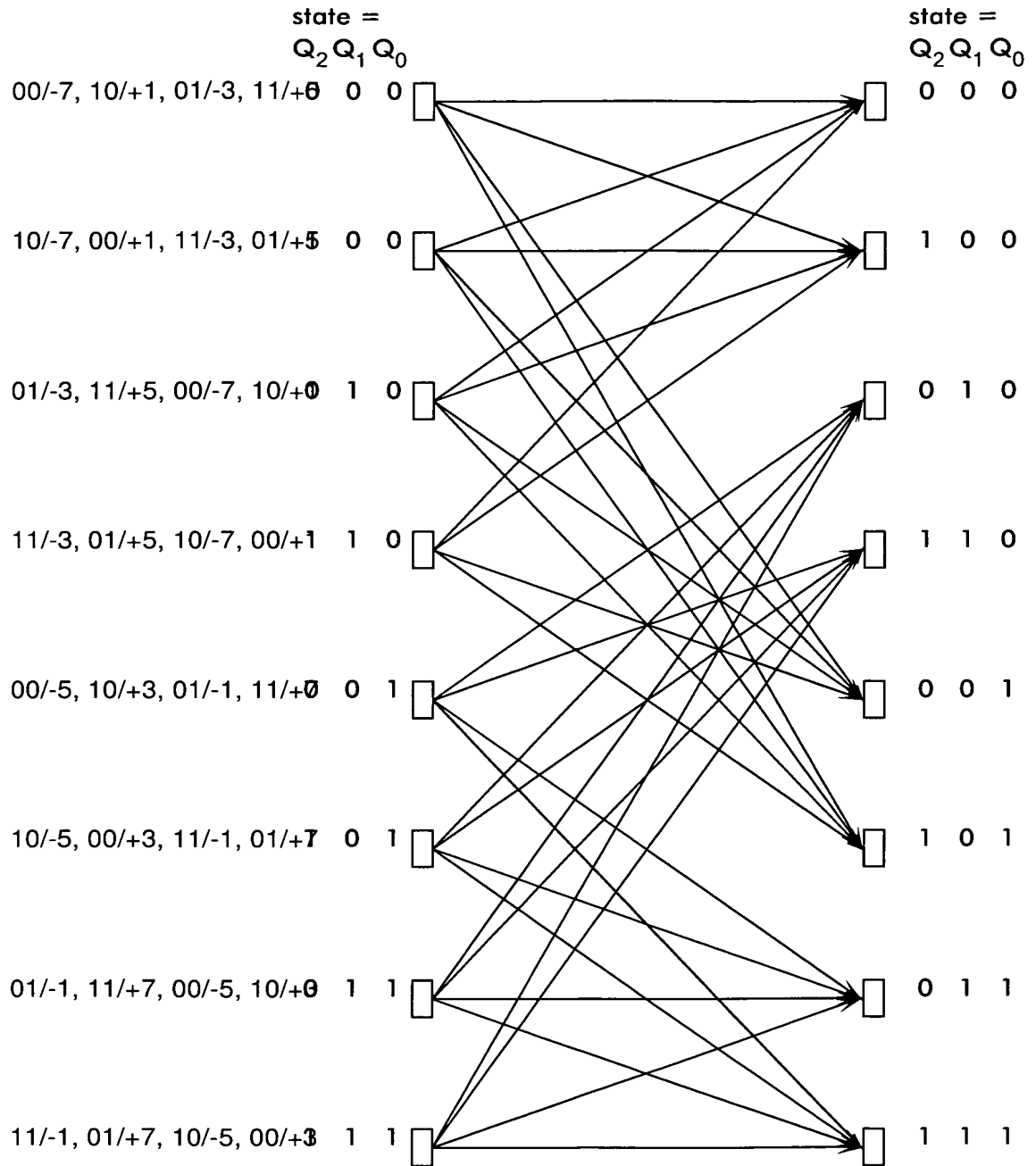
**Figure 3**



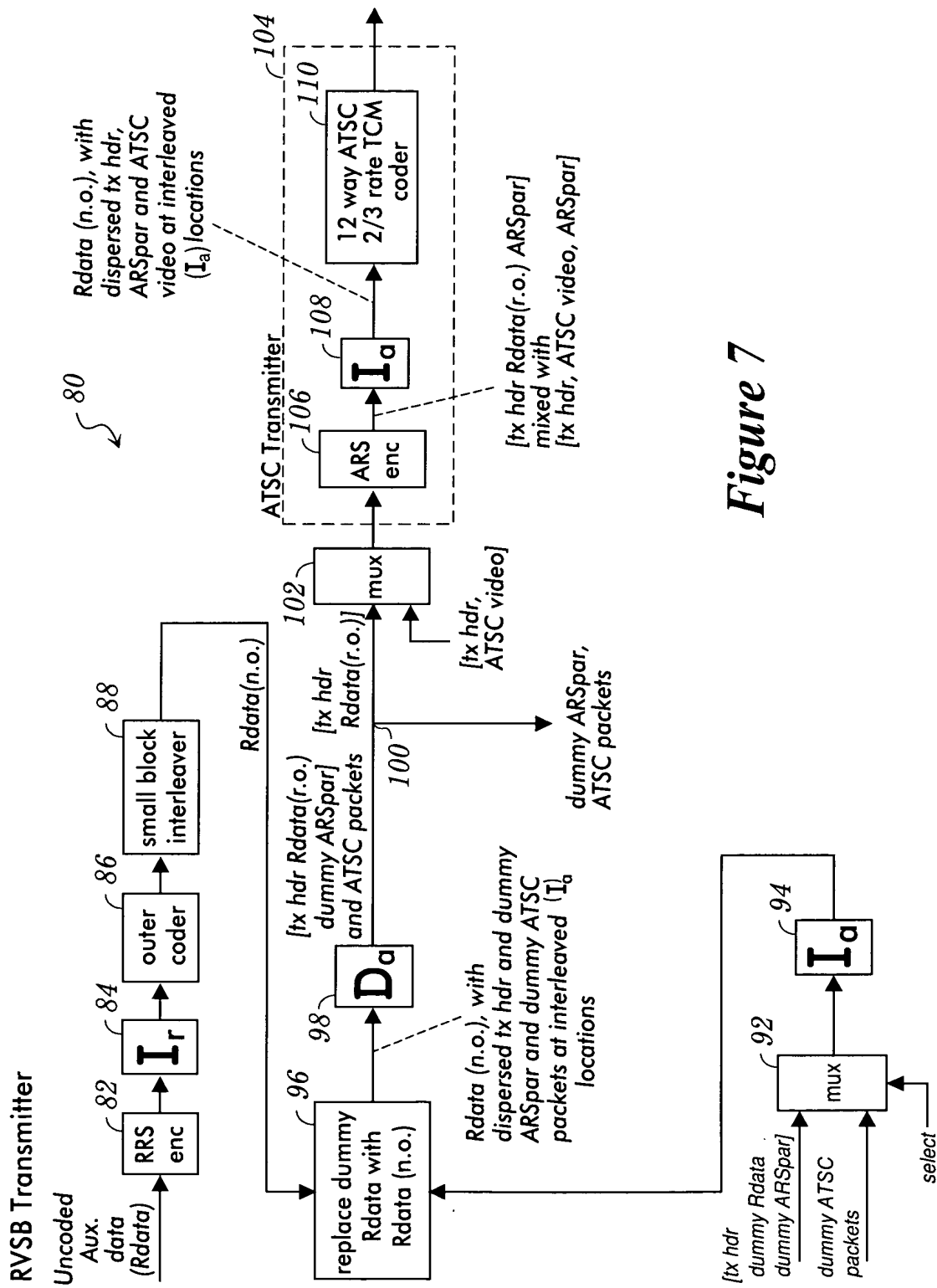
**Figure 4**

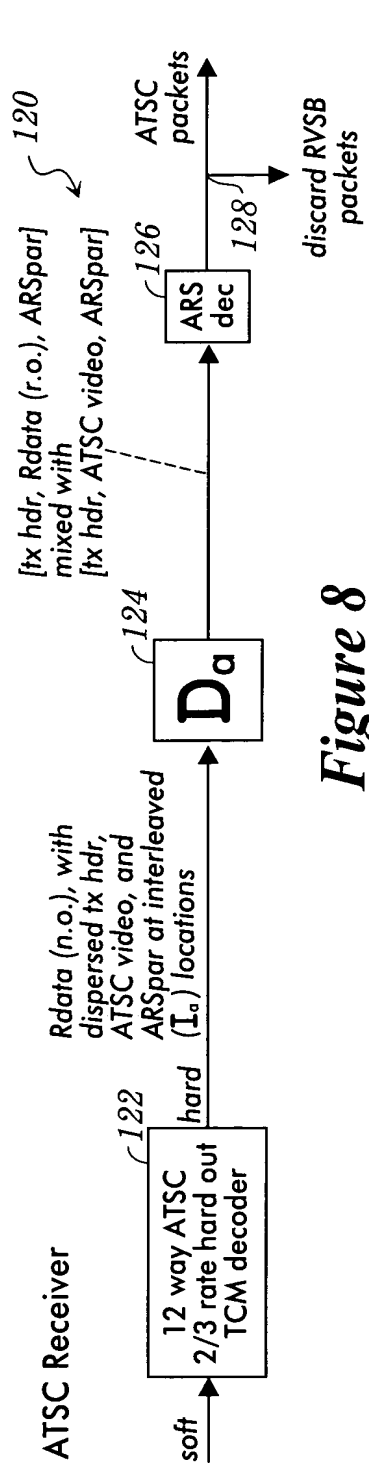
branch label :

$X_2X_1$  / mapped output level

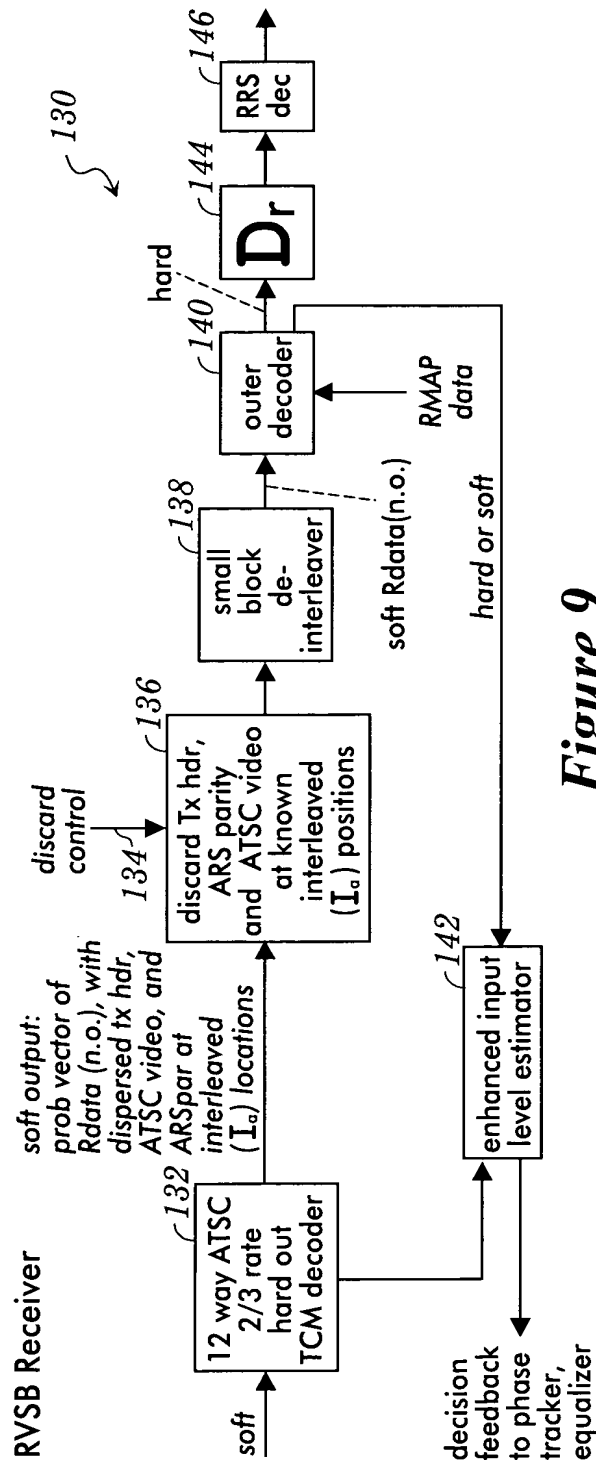


**Figure 6**

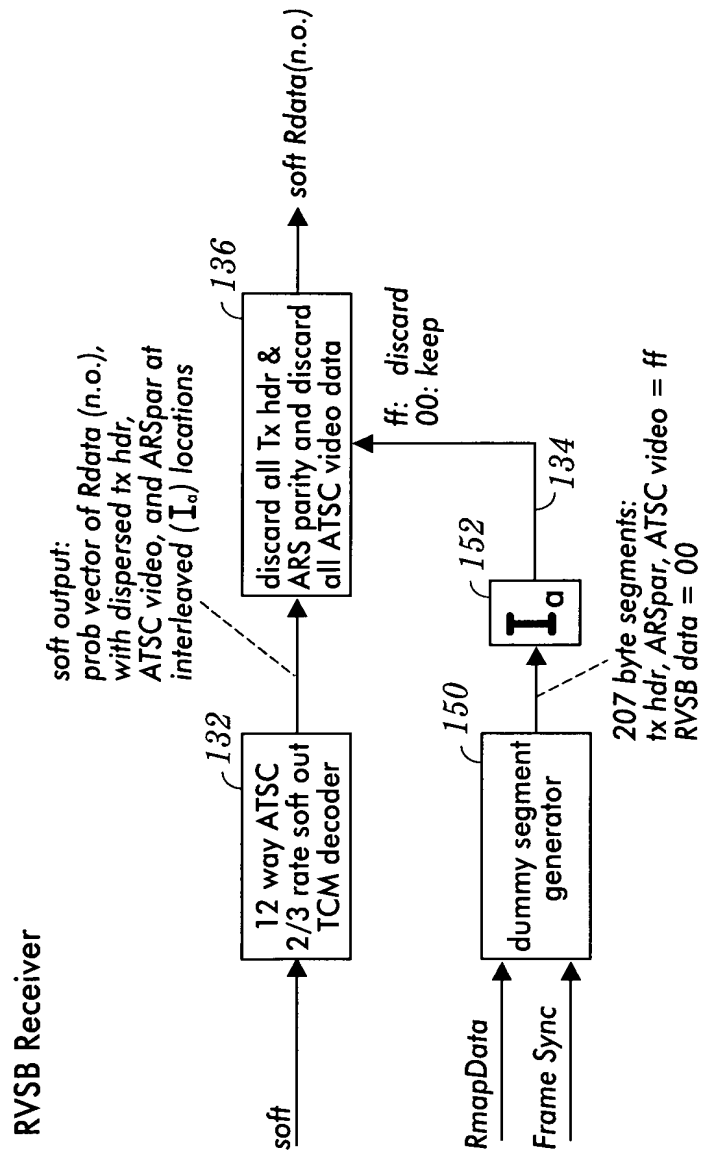




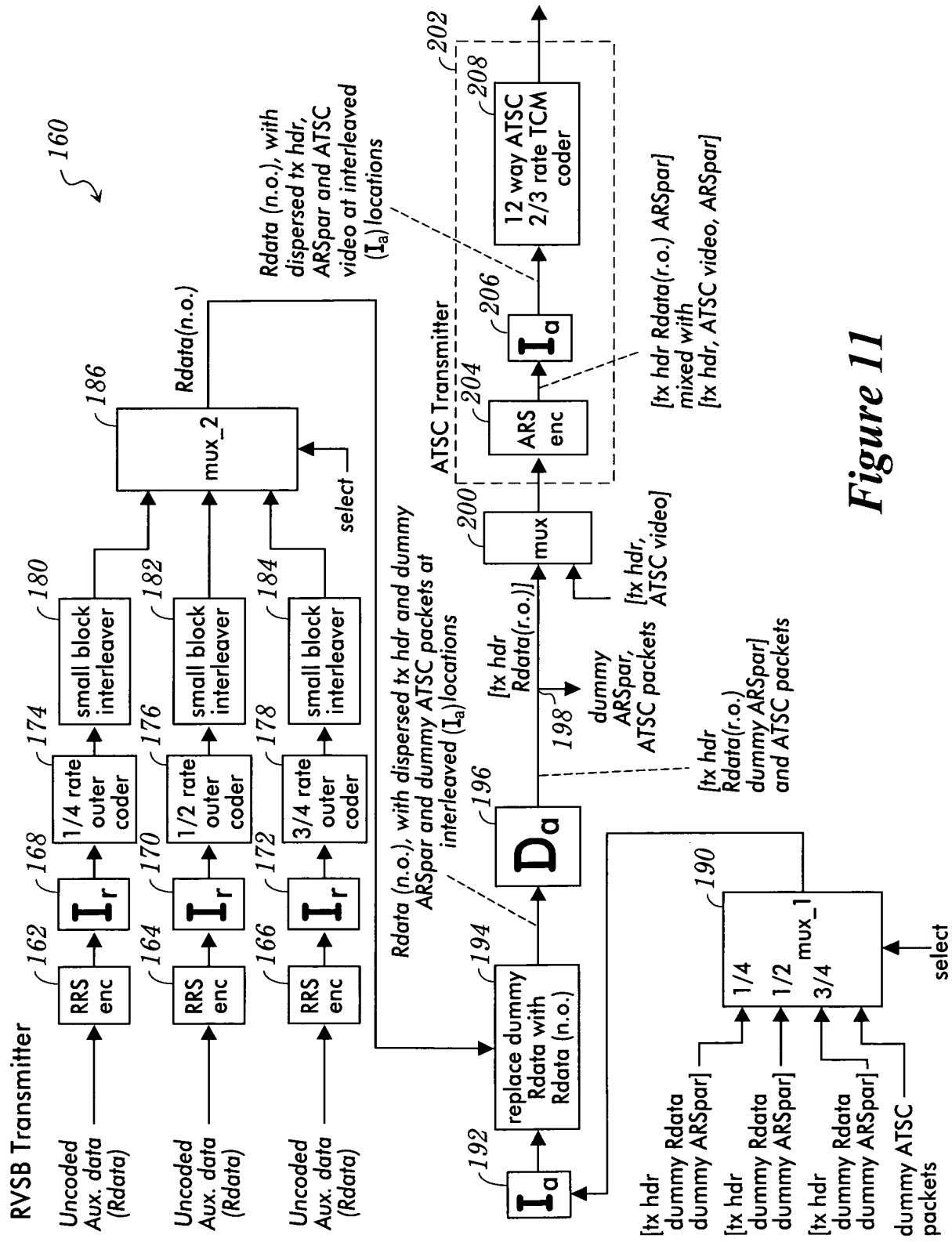
**Figure 8**



**Figure 9**



*Figure 10*



**Figure 11**

for 1/2 rate outer code

ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 92 bytes payload		ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (576 symbols) 72 bytes payload	RRS parity (160 symbols) 20 bytes	ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 92 bytes payload		ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (576 symbols) 72 bytes payload	RRS parity (160 symbols) 20 bytes	ARS parity (80 symbols)
2 bits/symbol		1 bit/symbol	2 bits/symbol

**Figure 12**

for 1/4 rate outer code

ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 46 bytes payload		ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 46 bytes payload		ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 46 bytes payload		ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (416 symbols) 26 bytes payload	RRS parity (320 symbols) 20 bytes	ARS parity (80 symbols)
2 bits/symbol		0.5 bit/symbol	2 bits/symbol

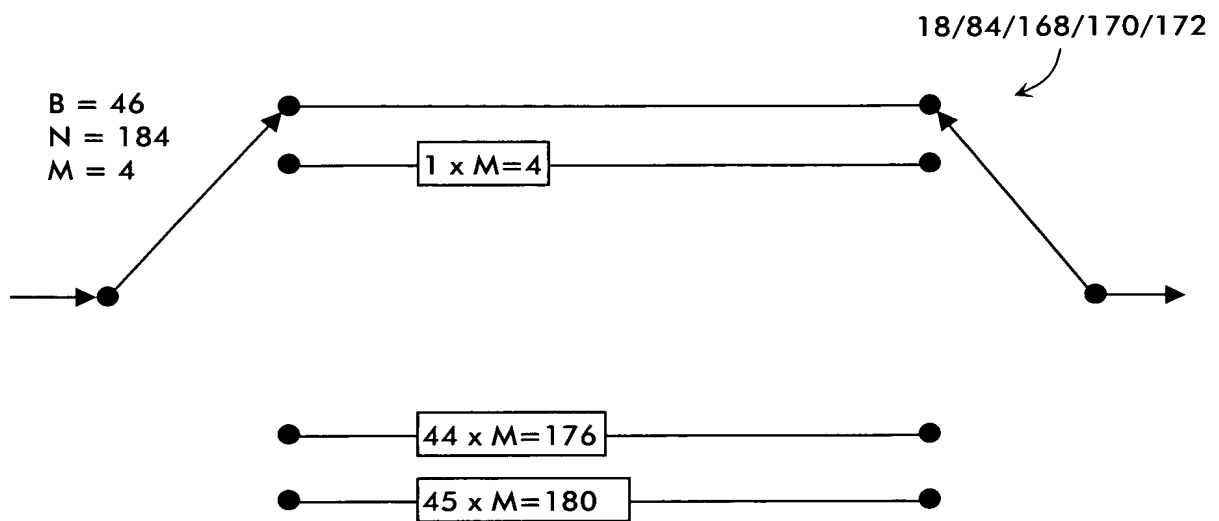
**Figure 13**

for 3/4 rate outer code

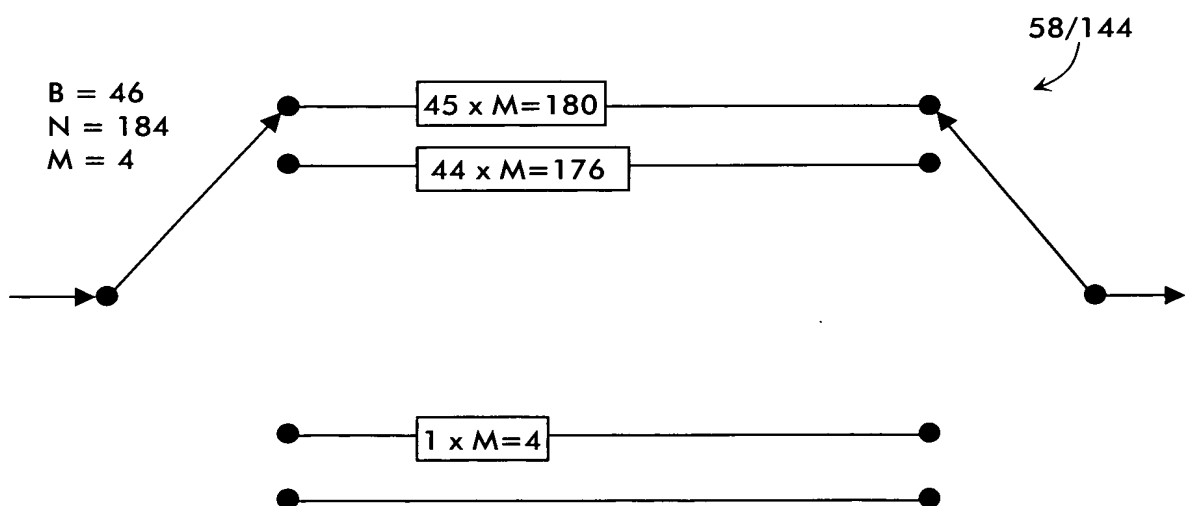
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 138 bytes payload			ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 26 bytes payload	20 bytes RRS parity	92 bytes payload	ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 72 bytes payload	20 bytes RRS parity	46 bytes payload	ARS parity (80 symbols)
ATSC tx hdr (12 symbols)	RVSB data (736 symbols) 118 bytes payload      20 bytes RRS parity			ARS parity (80 symbols)
2 bits/symbol		1.5 bit/symbol		2 bits/symbol

**Figure 14**





*Figure 15*

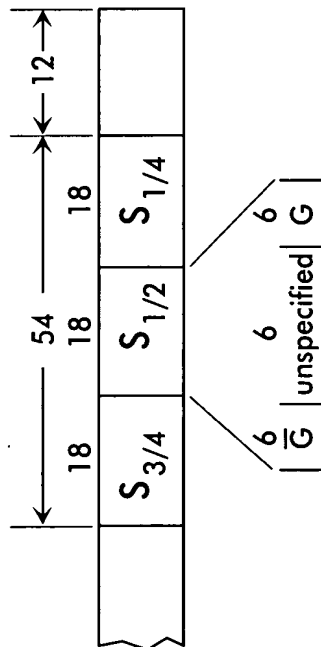


*Figure 16*

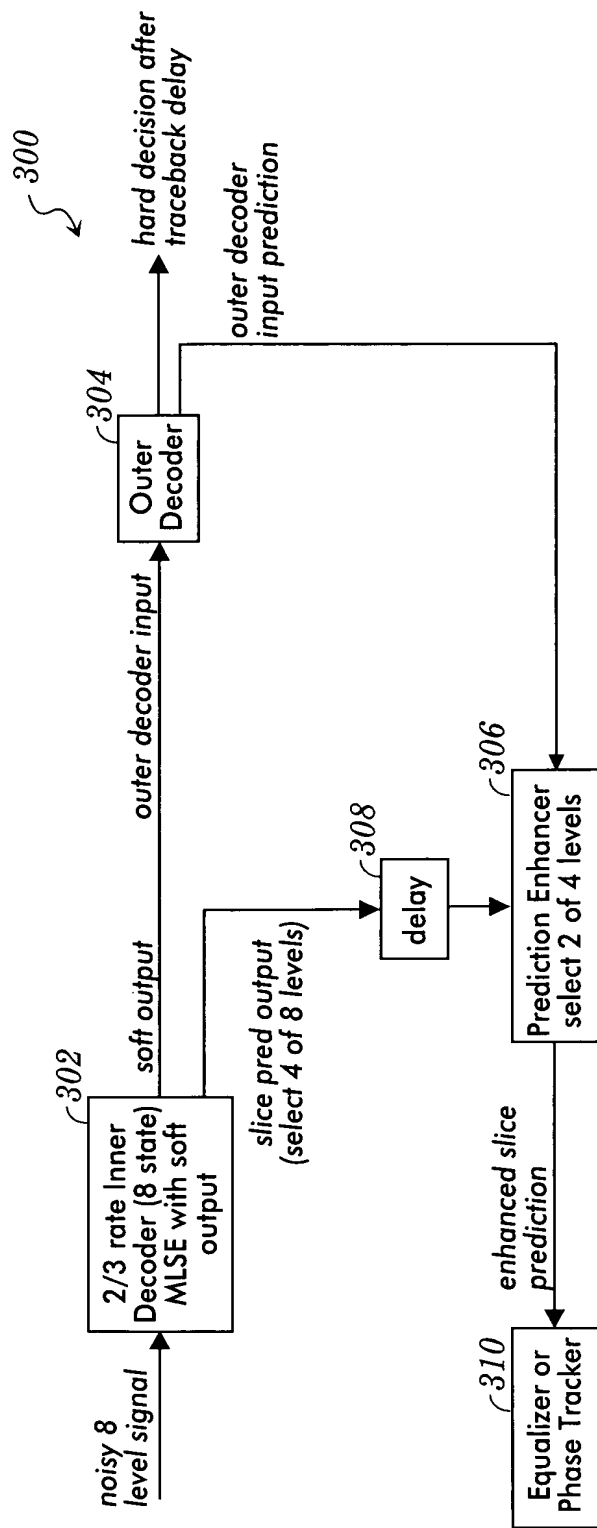
First RVSB RS block of field

RVSB map data (24 bits)	1288 bits
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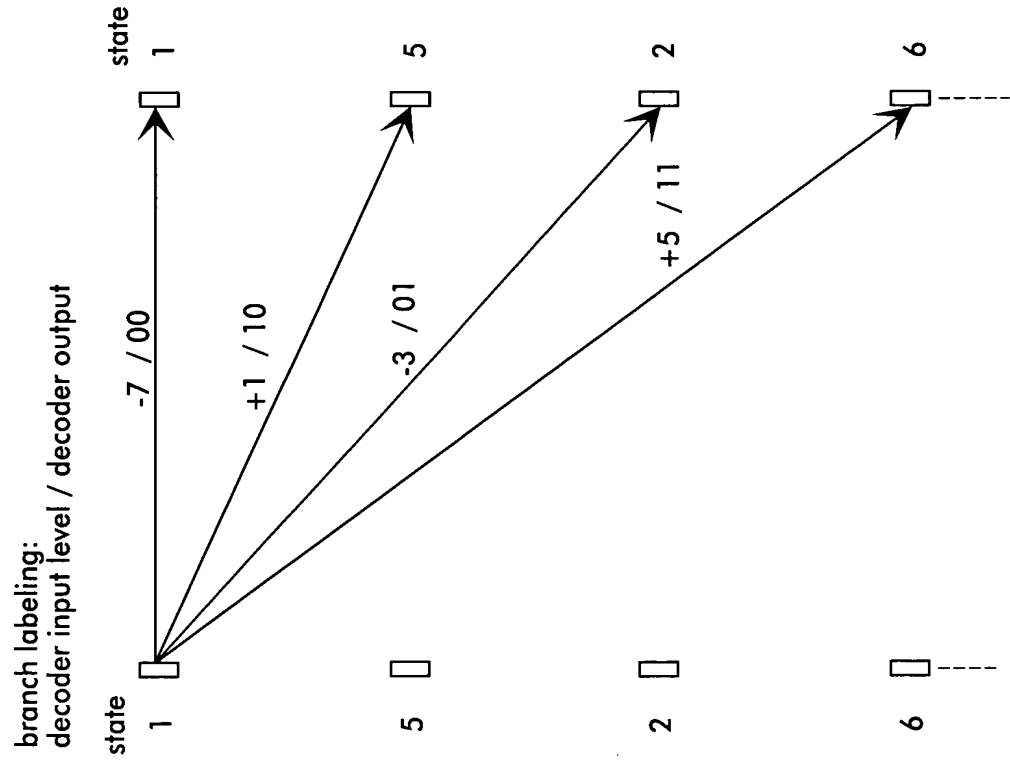
*Figure 17*



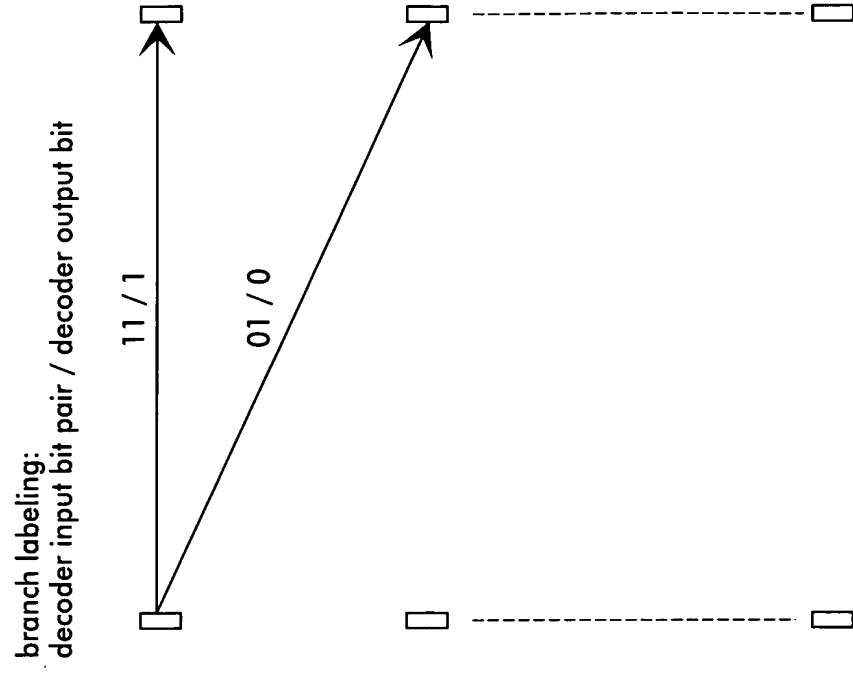
**Figure 18**



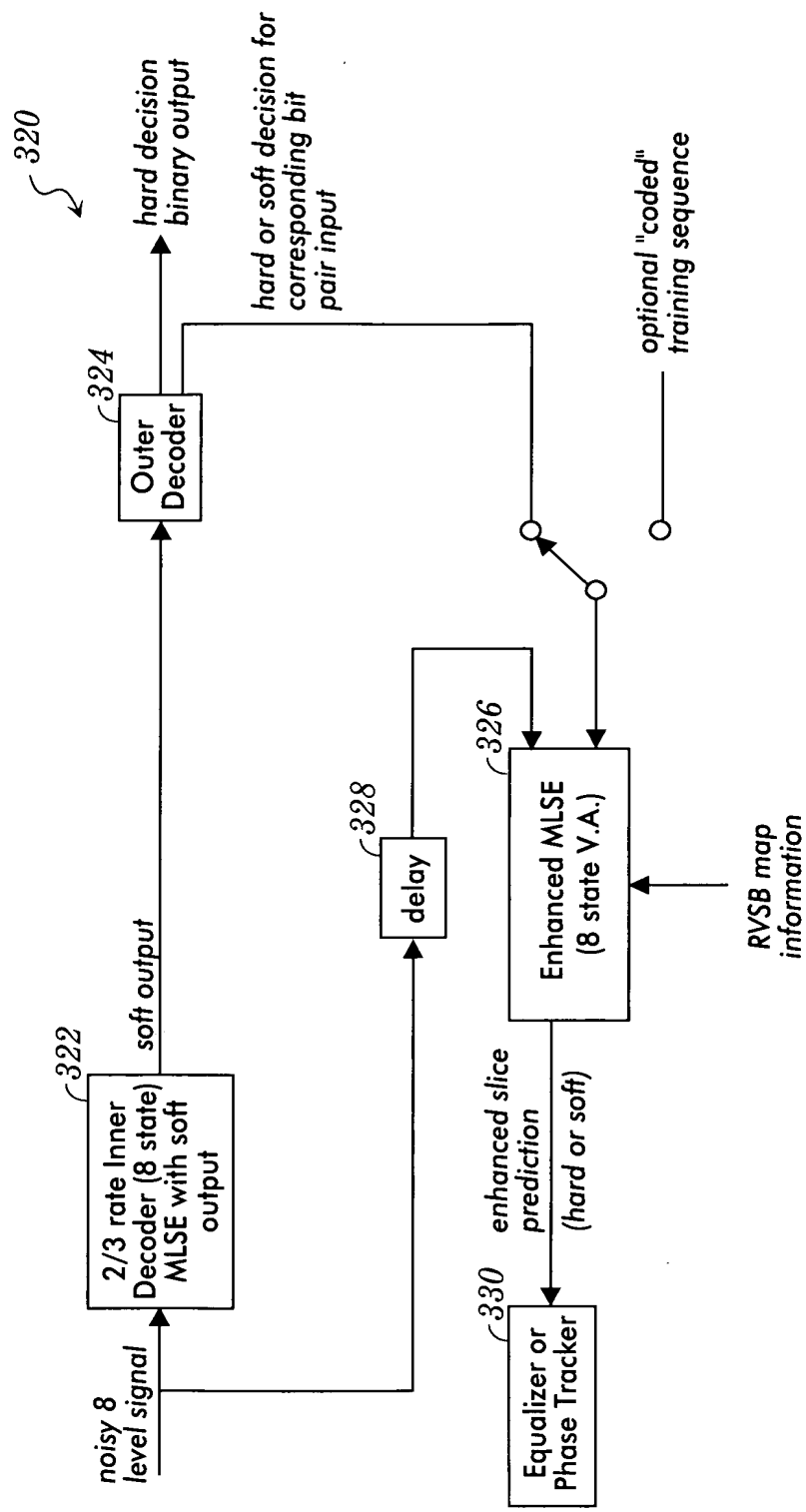
**Figure 19**



*Figure 20*



*Figure 21*



**Figure 22**